



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/501,239	07/12/2004	Kiyoto Kawauchi	2565-0283PUS1	8255

2292 7590 08/05/2008
BIRCH STEWART KOLASCH & BIRCH
PO BOX 747
FALLS CHURCH, VA 22040-0747

EXAMINER

ALMEIDA, DEVIN E

ART UNIT	PAPER NUMBER
----------	--------------

2132

NOTIFICATION DATE	DELIVERY MODE
-------------------	---------------

08/05/2008

ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

mailroom@bskb.com

Office Action Summary	Application No. 10/501,239	Applicant(s) KAWAUCHI, KIYOTO	
	Examiner DEVIN ALMEIDA	Art Unit 2132	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 11 June 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-21 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-21 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

This action is in response to the papers filed 6/11/2008.

Response to Arguments

Applicant's arguments have been fully considered but they are not persuasive. Yunsk teaches that there is a plugin server where the user selects different plugins with logics for attacking individual security holes. This is the manual process of the claim language. Making the user select a script that selects the different plugins to be run instead of the user selecting the plugins to be run is not sufficient to distinguish it over the prior art. See *In re Venner*, 262 F.2d 91, 95, 120 USPQ 193, 194 (CCPA 1958) (Appellant argued that claims to a permanent mold casting apparatus for molding trunk pistons were allowable over the prior art because the claimed invention combined “old permanent-mold structures together with a timer and solenoid which automatically actuates the known pressure valve system to release the inner core after a predetermined time has elapsed.” The court held that broadly providing an automatic or mechanical means to replace a manual activity which accomplished the same result is not sufficient to distinguish over the prior art.).

Applicant's arguments with respect to Yunsk in view of Kim not teaching a “a springboard simulation program including a packet transmission/reception function, a process start/end function, a function to input/output data to/from a process, and a file transfer function; and a springboard simulation program control unit executing the plugin on the test target computer via the springboard simulation program upon instruction from the plugin” been fully considered but they are not persuasive. Kim teaches the functional equivalent of a springboard

simulation program. Since a springboard simulation program is not common term in the art and is just a program that runs the plugin test on a target computer. Kim clearly teaches the limitations in section 4 Customization. The structural body allows a use of program in the necessary direction by adding a necessary underlying function to be added anytime. These plugins can be run on the client computer (see Yunsk client structure).

Applicant's arguments with respect to claim 5 have been considered but are moot in view of the new ground(s) of rejection below.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 2-4, 7, 8, 10-15, 18 and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yunsk "Nessus Analysis Report", July 2001 in view of In re Venner, 262 F.2d 91, 95, 120 USPQ 193, 194 (CCPA 1958) in further view of Kim "about Firewall & Network Security chap 10" translated to English. Yunsk teaches everything with respect to claim 1, a security hole diagnostic system comprising: a script accumulation unit accumulating a plurality of scripts (Yunsk Plugin) in a programming language describing procedures usually used by attackers for illegal access (see Chapter 3 Nessus installation i.e. *Nessus server*); an operation unit making a request for a list of the plurality of scripts upon entry from a user (see Chapter 3 Nessus installation i.e. *Nessus client*); a script control unit retrieving each script from the script

accumulation unit upon the request from the operation unit, creating a list of input/output parameters, a script execution condition and a test procedure described thereby, and presenting the list of scripts to the user, and executing a script (Yunsk Plugin) that is selected by the user (see Chapter 3 Nessus installation Section 2) Client structure); a plugin accumulation unit accumulating plugins with logics for attacking individual security holes (see Chapter 3 Nessus installation Section 2) Client structure – Select plug-in for scanning).

Yunsk does not teach that a plugin control unit, which is called by an execution of the script by the script control unit, for retrieving from the plugin accumulation unit a plugin that is specified by the script to be executed and executing the plugin on a test target computer; a springboard simulation program including a communication relay function, a packet transmission/reception function, a process start/end function, a function to input/output data to/from a process, and a file transfer function; and a springboard simulation program control unit executing the plugin on the test target computer via the springboard simulation program upon instruction from the plugin.

Yunsk teaches that there is a plugin server where the user selects different plugins with logics for attacking individual security holes. It would have been obvious to have included a plugin control unit, which is called by an execution of the script by the script control unit, for retrieving from the plugin accumulation unit a plugin that is specified by the script to be executed and executing the plugin on a test target computer to make an automated process for selecting the plugins to be executed. Making the user select a script that selects the different plugins to be run instead of the user selecting the plugins to be run is not sufficient to distinguish it over the prior art. See *In re Venner*, 262 F.2d 91, 95, 120 USPQ 193, 194 (CCPA 1958)

(Appellant argued that claims to a permanent mold casting apparatus for molding trunk pistons were allowable over the prior art because the claimed invention combined “old permanent-mold structures together with a timer and solenoid which automatically actuates the known pressure valve system to release the inner core after a predetermined time has elapsed.” The court held that broadly providing an automatic or mechanical means to replace a manual activity which accomplished the same result is not sufficient to distinguish over the prior art.).

Kim teaches a springboard simulation program including a packet transmission/reception function, a process start/end function, a function to input/output data to/from a process, and a file transfer function (See section 4 Customization); and a springboard simulation program control unit executing the plugin on the test target computer via the springboard simulation program upon instruction from the plugin (See section 4 Customization).

The present invention and the Nessus systems described in the cited inventions are both systems to give a diagnosis of a security hole (a vulnerable point) either locally or remotely. Their objectives and effects have similarities in that the performance is made in a plug-in selection form, which does not require a user to have the knowledge of input/output parameters.

According to the present invention, however, plugins corresponding to a plurality of scenarios are called out from the script accumulation unit. According to the Nessus systems of the cited documents, on the other hand, plugins can be called out in a variety of script forms created in response to a user setup, which is different from the present invention.

All the scripts provided by the present application are included in the Nessus systems of the cited documents 1 and 2. The Nessus systems can also execute all the plugins provided by the

present invention. Therefore, the present invention includes the inventions of the cited documents.

Therefore, a person with ordinary skill in the art can configure the present invention easily based on the cited documents. The effects of the present invention can also be anticipated based on the cited documents. For the reasons discussed above, a patent cannot be granted.

With respect to claim 3, wherein the script is constructed to have a function to allow it to call another script (see Chapter 3 Nessus installation Section 2) Client structure – Plugin preferences. For instance, the pop2 overflow testing need a pop count, *queso* plugin setup specifies the configuration file route).

With respect to claim 4, wherein the script includes class concept, and wherein the script is constructed to have a function to allow it to call another script by specifying a class name when calling the another script (see Chapter 3 Nessus installation Section 2 and Client structure – Plugin preferences). For instance, the pop2 overflow testing need a pop count, *queso* plugin setup specifies the configuration file route).

With respect to claim 7, wherein the script control unit, the plugin accumulation unit, the plugin control unit, the script accumulation unit, and the springboard simulation program control unit form a test execution unit, and the test execution unit and the operation unit are disposed separately on a network (See section 1 Nessus Structure).

With respect to claim 8, wherein the plugin is described in an interpreter language (see Chapter 3 Nessus installation).

With respect to claim 10, said script control unit also adding new and updated scripts to said script accumulation unit at the direction of the user (See Kim section 1 Nessus Structure).

With respect to claim 11, said script control unit also executing a script that is called by another script (See Kim section 1 Nessus Struture).

With respect to claim 12, wherein the communications relay function communicates with a second springboard simulation program (See Kim section 4 Customization).

With respect to claim 13, wherein the communications relay function communicates with a springboard simulation program control unit over a network (See Kim section 4 Customization).

With respect to claim 14, wherein the communications relay function transmits an incoming control message to the operation unit (See Kim section 4 Customization).

With respect to claim 15, wherein the operation unit transmits an outgoing or misdirected control message through the communications relay function (See Kim section 4 Customization).

With respect to claim 18, wherein the test execution unit is disposed outside of a firewall, and the operation unit is disposed inside of a firewall (See section 1 Nessus Structure).

With respect to claim 19, said plugins being editable while a diagnostic script is running (see Chapter 3 Nessus installation Section 2) Client structure).

Claim 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yunsk "Nessus Analysis Report", July 2001 in view of In re Venner, 262 F.2d 91, 95, 120 USPQ 193, 194 (CCPA 1958) in view of Kim "about Firewall & Network Security chap 10" translated to English in further view of Uchiyama (U.S. 2002/0024686). Yunsk Venner and Kim teach everything with respect to claim 2 above but with respect to claim 9 they do not teach wherein the springboard simulation program control unit is constructed by using a protocol designed to pass

firewalls. Uchiyama teaches wherein the springboard simulation program control unit is constructed by using a protocol designed to pass firewalls (See Uchiyama paragraph 0088). It would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains to have used a protocol that can pass firewalls to allow messages to be passed between the server the client. Therefore one would have been motivated to have used a protocol that can pass firewalls (See Uchiyama paragraph 0088).

Claims 5, 6, 16, 17, 20 and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yunsk "Nessus Analysis Report", July 2001 in view of In re Venner, 262 F.2d 91, 95, 120 USPQ 193, 194 (CCPA 1958) in view of Kim "about Firewall & Network Security chap 10" translated to English in further view of Curtis et al (U.S. 6,507,948).

Yunsk, Venner and Kim teach with respect to claim 5, comprising: a security hole diagnostic system comprising: a script accumulation unit accumulating a plurality of scripts (Yunsk Plugin) in a programming language describing procedures usually used by attackers for illegal access (see Chapter 3 Nessus installation i.e. *Nessus server*); an operation unit making a request for a list of the plurality of scripts upon entry from a user (see Chapter 3 Nessus installation i.e. *Nessus client*); a script control unit retrieving each script from the script accumulation unit upon the request from the operation unit, creating a list of input/output parameters, a script execution condition and a test procedure described thereby, and presenting the list of scripts to the user, and executing a script (Yunsk Plugin) that is selected by the user (see Chapter 3 Nessus installation Section 2) Client structure); a plugin accumulation unit

accumulating plugins with logics for attacking individual security holes (see Chapter 3 Nessus installation Section 2) Client structure – Select plug-in for scanning).

Yunsk does not teach that a plugin control unit, which is called by an execution of the script by the script control unit, for retrieving from the plugin accumulation unit a plugin that is specified by the script to be executed and executing the plugin on a test target computer; a knowledge sharing unit verifying whether the script execution condition is met, wherein the knowledge sharing unit includes, a deduction unit deriving new knowledge from information collected in an execution process of the script based on a deduction rule.

Yunsk teaches that there is a plugin server where the user selects different plugins with logics for attacking individual security holes. It would have been obvious to have included a plugin control unit, which is called by an execution of the script by the script control unit, for retrieving from the plugin accumulation unit a plugin that is specified by the script to be executed and executing the plugin on a test target computer to make an automated process for selecting the plugins to be executed. Making the user select a script that selects the different plugins to be run instead of the user selecting the plugins to be run is not sufficient to distinguish it over the prior art. See *In re Venner*, 262 F.2d 91, 95, 120 USPQ 193, 194 (CCPA 1958) (Appellant argued that claims to a permanent mold casting apparatus for molding trunk pistons were allowable over the prior art because the claimed invention combined “old permanent-mold structures together with a timer and solenoid which automatically actuates the known pressure valve system to release the inner core after a predetermined time has elapsed.” The court held that broadly providing an automatic or mechanical means to replace a manual activity which accomplished the same result is not sufficient to distinguish over the prior art.).

Curtis teaches a knowledge sharing unit verifying whether the script execution condition is met, wherein the knowledge sharing unit includes, a deduction unit deriving new knowledge from information collected in an execution process of the script based on a deduction rule (see column 2 lines 16-24 and column 7 lines 33-63). It would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains to have permissions for executing batch or script files to only allow allowed users to execute the batch or script files (see Curtis column 7 lines 33-63). Therefore one would have been motivated to have included permissions for executing batch or script files.

With respect to claim 6, wherein the knowledge sharing unit is constructed to have a function to execute a script for acquiring knowledge based on the deduction rule when shared knowledge is insufficient (see column 2 lines 16-24 and column 7 lines 33-63).

With respect to claim 16, the script execution condition comprising a predicate calculus based description of the conditions required for executing the script. Curtis teaches the script execution condition comprising a predicate calculus based description of the conditions required for executing the script (see Curtis column 2 lines 16-24 and column 7 lines 33-63). It would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains to have permissions for executing batch or script files to only allow allowed users to execute the batch or script files (see Curtis column 7 lines 33-63). Therefore one would have been motivated to have included permissions for executing batch or script files.

With respect to claim 17, wherein said knowledge sharing unit determines whether script execution conditions have been met and communicates said determination to said script control unit (see Curtis column 2 lines 16-24 and column 7 line 33-63).

With respect to claim 20 and 21, a security hole diagnostic system comprising: accumulating a plurality of scripts (Yunsk Plugin) in a programming language describing procedures usually used by attackers for illegal access (see Chapter 3 Nessus installation i.e. *Nessus server*); retrieving a list of at least one of said plurality of script from the script accumulation unit upon the request from the operation unit, creating a list of input/output parameters, a script execution condition and a test procedure described thereby; presenting the list of scripts to the user, and executing a script (Yunsk Plugin) that is selected by the user (see Chapter 3 Nessus installation Section 2) Client structure); retrieving from a plugin accumulation unit accumulating plugins with logics for attacking individual security holes (see Chapter 3 Nessus installation Section 2) Client structure – Select plug-in for scanning).

Yunsk does not teach that a plugin control unit, which is called by an execution of the script by the script control unit, for retrieving from the plugin accumulation unit a plugin that is specified by the script to be executed and executing the plugin on a test target computer; verifying whether the script execution condition is met deriving new knowledge from information collected in an execution process of the script based on a deduction rule.

Yunsk teaches that there is a plugin server where the user selects different plugins with logics for attacking individual security holes. It would have been obvious to have included a plugin control unit, which is called by an execution of the script by the script control unit, for retrieving from the plugin accumulation unit a plugin that is specified by the script to be

executed and executing the plugin on a test target computer to make an automated process for selecting the plugins to be executed. Making the user select a script that selects the different plugins to be run instead of the user selecting the plugins to be run is not sufficient to distinguish it over the prior art. See *In re Venner*, 262 F.2d 91, 95, 120 USPQ 193, 194 (CCPA 1958) (Appellant argued that claims to a permanent mold casting apparatus for molding trunk pistons were allowable over the prior art because the claimed invention combined “old permanent-mold structures together with a timer and solenoid which automatically actuates the known pressure valve system to release the inner core after a predetermined time has elapsed.” The court held that broadly providing an automatic or mechanical means to replace a manual activity which accomplished the same result is not sufficient to distinguish over the prior art.).

Curtis teaches verifying whether the script execution condition is met deriving new knowledge from information collected in an execution process of the script based on a deduction rule (see Curtis column 2 lines 16-24 and column 7 line 33-63). It would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains to have permissions for executing batch or script files to only allow allowed users to execute the batch or script files (see Curtis column 7 lines 33-63). Therefore one would have been motivated to have included permissions for executing batch or script files.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Devin Almeida whose telephone number is 571-270-1018. The examiner can normally be reached on Monday-Thursday from 7:30 A.M. to

Art Unit: 2132

5:00 P.M. The examiner can also be reached on alternate Fridays from 7:30 A.M. to 4:00 P.M.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gilberto Barron, can be reached on 571-272-3799. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/Devin Almeida/
Examiner, Art Unit 2132
7/23/2008

/Benjamin E Lanier/
Primary Examiner, Art Unit 2132